

# PROTEA TURF EQUIPMENT

**Distributed in Australia by Macarthur Mowers & Marine**



# PROTEA PRECISION MACHINERY

PROTEA is the market leader for professional-quality turf care machinery in South Africa. Higher specification Models were introduced in 2005, incorporating further safety and ergonomic developments. These models are now available in Australia through the Authorised Distributor, Macarthur Mowers and Marine.

Protea's mission is to produce machinery which can perform to the highest standards, under the toughest operating conditions, at the lowest possible cost, season after season. Combining simplicity with solid engineering, all machines are devoid of gimmicks with production costs focused on the essentials; strong, high quality components, and of course the best engines available. Customer feedback and refinement over the years has led to a range of machines which are easy to operate, simple and cost-effective to maintain, and a delight to use.



European versions retain the ruggedness and reliability of the South African originals, they incorporate further safety and ergonomic developments, such as, low vibration "comfort" controls allowing continuous use for long periods, and folding handles to aid in storage and transport. A great feature of Protea mowers is an adjustable rear roller to permit accurate alignment with the bottom blade, and provide the means to eliminate uneven cutting throughout the life of the machine.



On most models Electrical Interlocks provide a high level of operator safety, stopping the blades spinning but allowing the grassbox to be emptied without stopping the engine. A number of alternative reels can be fitted to some models to cover a wide range of applications. Subaru Robin EX engines are fitted throughout the range, chosen for their reliability and long life, as well as their clean, economical and quiet operation. So good that they come with a 3 year Commercial Warranty on Protea Mowers.



Since their European launch, Protea mowers and scarifiers have become the brand of choice for the discerning professional. The cutting quality and finish is exceptional, equal to, or better than any competitor, and at a value price. A long list of testimonials has accumulated since 2005 on the European models as proof of customer satisfaction. Add to this, the dedicated back-up service that Macarthur Mowers is known for throughout the industry, and it will be no surprise when Protea becomes a major name in Australian professional groundcare.



To ensure your worry-free ownership, comprehensive warranties cover parts and labour for two years on the chassis and components, and three years on the engine.

If you are a Local Authority Manager, independent contractor, groundsman, greenkeeper, or just want the best lawn in town, you will find a Protea reel mower or scarifier to suit your requirements.

## PROTEA DUAL-DRIVE HEAVY DUTY FINE TURF MOWERS

Amongst the most rugged and reliable cylinder mowers now available, Protea Heavy Duty, "HD's" come in 24 inch, 30 inch and 36 inch, and are suitable for a wide range of fine turf applications, from Cricket wickets through to outfields.

Standard features include a 12-blade precision-ground cutting cylinder, a densely packed nylon brush to enhance cut quality, dual rear rollers with removable roller scraper, tip-over steel grassbox, and the reliable and fuel efficient Subaru Robin EX17 5.7hp Overhead Cam and EX21 7hp engines.



Every component has been proven in the harsh conditions of their South African home market, earning these rugged machines an enviable reputation for reliability and high quality of cut. Industrial-quality bearings, heavy gauge steel chassis, heavy duty transmission components, and cable-free drive controls all contribute to a long working life. Simple positive operator controls are combined with ideal weight and balance, making even the 36inch version feel light and easy to operate.

The open frame design of the "HD" models allows for easy cleaning and maintenance, and the low vibration handle mounting system provides great operator comfort. As with all Protea Mowers, the "HD" comes with an adjustable rear roller, assuring perfectly level cutting throughout the life of the machine. Precision cutting height adjusters enable very accurate settings down to 2mm. Optional, extremely hard wearing rubberised rear rollers give additional grip on slopes and resist damage over hard surfaces, and two different sprockets are available for different clip rates. With the 12-blade reel and the low-ratio sprocket the clip rate is as high as 181 cuts per metre.

The "HD" models come with a heavy steel front roller so the mower acts as a roller as well. A heavy duty cast aluminium chaincase cover adds strength to these models.

A choice of reels can be fitted, an 8-blade for long lush grass, a 12-blade for the ultimate cut, a grooming reel and one for brushing. The HD 914 was used virtually exclusively throughout the 2010 Soccer World Cup, 94 units in total, providing excellent surfaces for play.



A detachable sulky seat is available for large areas that require a ride-on facility.

### SPECIFICATIONS

Dual-drive			
Engine	Subaru model EX17 single cylinder air-cooled 4-stroke OHC petrol engine. Maximum horsepower 5.7 @ 4,000 rpm.		
Transmission	Separate independent clutches to Cylinder and landroll drive		
Clutch	Triple V-belts plus triple heavy-duty roller chains		
Drive System	Height adjustable, smooth or rubberised, two-part steel rear roller with differential, running in heavy-duty ball bearings		
Rear Roller	Cutting Reel 8 or 12-blade, 152mm diameter		
Cutting Reel	Bottom Blade Hardened steel, 2mm or 5mm		
Bottom Blade	HD610	HD760	HD914
Cutting width	24 inc 610mm	30 inch 760mm	36 inch 914mm
Front Roller Adjuster	Heavy-duty tubular steel Dual Micro Adjusters		
Frequency of cut	8-blade, 96 cuts per metre or 12-blade, 181 cuts per metre		
Dimensions			
Height	1100mm	1100mm	1100mm
Length	1200mm	1200mm	1200mm
Overall width	24" - 850,	30" - 1000,	36" - 1200
Wheelbase	440mm	440mm	440mm
	Middle of roller to middle of roller		
Weight (with catcher)	24" -168kg, 30" - 196kg, 36" - 207kg		

# PROTEA DOMESTIC AND PREMIUM REEL MOWERS



Lawn in Ruse New South Wales

Protea manufacture superb Reel Mowers, the quality further enhanced by Subaru OHV EX17 5.7hp engines, and optional extras added as standard. Available in 17inch, 20inch and 25inch, with smooth rear rollers, or galvanised rubber to provide grip on slopes, plus 9-blade reels, rear roller scrapers, fine reel-to-blade adjusters, and a clutch cover for safety. Also, comfortable T-bar handles and a variable-speed drive system.

The rear roller can easily be adjusted for perfect alignment with the bottom blade to ensure that a "set" never develops throughout the life of the machine, and a removable roller scraper is fitted as standard.



Optimum balance makes handling feel effortless, whilst controls are easy to use, and non-tiring. Gearing has been chosen after extensive trials to give an ideal range of ground speeds, and an extremely fine clip-rate. The light land roll clutch facilitates "inching" in tight turns.

Premium models are available with 12-blade reels, a non grass-suppressing Wiehle front roller, plus dual-point height adjusters for a professionally accurate roller to bedknife set-up.



## SPECIFICATIONS

Engine	Subaru model EX17 single cylinder air-cooled 4-stroke OHC petrol engine. Maximum horsepower 5.7 @ 4,000 rpm.
Transmission	
Clutch	Centrifugal clutch to cylinder and plate clutch to landroll drive, variable speed
Drive System	Chain drive
Rear roller	Smooth or Galvanised rubber and adjustable
Cutting Reel	9-blade, hardened steel
Premium model	12-blade, hardened steel
Bottom Blade	Hardened steel, precision ground to 1.5mm
Cutting width	17 inch (425mm) 20 inch (510mm) or 25 inch (630mm)
Front Roller	Tubular Steel with roller bearings at each end
Premium model	Wiehle roller
Height Adjuster	Single adjuster
Premium Model	Dual-adjuster
Frequency	9-blade 118 cuts per metre 12-blade 157 cuts per metre
Dimensions	
Height	35 inch (890mm) to 38 inch (970mm) (depending on operator's handle set-up)
Length	40 inch w/o catcher, 52 inch with catcher
Overall Width	17 inch models – 23 ½ inch (600mm) 20 inch models – 26 ½ inch (670mm) 25 inch models – 32 inch (820mm)
Wheelbase	330mm – middle of roller to roller
Weight	17 inch 75kg, Premium Models 78kg
With grassbox	20 inch 79kg, Premium Models 82kg 25 inch 85kg, Premium models 89kg



# PROTEA SINGLE AND DUAL-DRIVE "GOLF" GREENS MOWERS



Protea "GOLF", Greens and Tees Mowers are designed and constructed to provide the highest possible quality of cut consistently over extended periods, and to meet the rigorous demands of modern Golf Courses. The dual-drive system allows for driving without the cylinder engaged. The "click" dual height adjusters allow for quick, accurate adjustment of the cutting height.



The GOLF Greens Mower comes from the development of the best-selling Protea Greens Mower, and is powered by the Subaru EX17 engine, adjustable smooth split rear rollers with roller scrapers, shaver bottom blade and adjustable brush strip.

The GOLF Greens Mower has 12 blade, precision-ground cutting cylinders, individually tested prior to assembly



Cutting height adjustment is quick, simple and accurate. Dual micrometer adjusters are on the Single-drive models, and the "Click-type" height adjusters with .25mm increments are fitted on the Dual-drive models, the latter permitting rapid and accurate height adjustments without the need for tools or a setting gauge.

The dual-drive models come standard with transport wheels to protect the cutting cylinder, bottom blade and steel rollers from damage.



## SPECIFICATIONS

Dual-drive and Single-drive

Engine Subaru model EX17 single cylinder air-cooled 4-stroke OHC petrol engine.  
Maximum horsepower 5.7 @ 4,000 rpm.

Transmission

Single-drive

Clutch Centrifugal clutch to cylinder and plate clutch to landroll drive

Dual-drive The dual-drive system allows the rear rollers to be disconnected from the cutting cylinder for self-powered transport.

Drive System Chain drive

Rear Roller Smooth and adjustable

Cutting

Reel 12-blade, 142mm diameter

Bottom Blade Hardened steel, precision ground to 1.5mm

Cutting width 20 inch (510mm) or 25 inch 630mm

Overall width 20 inch Single Drive – 26.5 inches (670mm)

25 inch Single Drive – 32 inches (820mm)

Front Roller Wiehle

Height Adjuster Dual "Click" on the Dual-drive, and Dual Micro Adjusters on the Single-drive.

Frequency 157 cuts per metre

Dimensions

Height 1000mm

Length 800mm

Width 20 inch- 670mm, 25 inch – 790mm

Wheelbase 330mm – middle of roller to middle of roller

Weight 20 inch single drive 78kg

With grassbox 25 inch single drive 82kg

20 inch dual drive with transport wheels 83kg

25 inch dual drive with transport wheels 89kg

# PROTEA POWERED GROOMER/DETHATCHER



The accumulation of thatch on any grass surface is a major cause of poor grass condition. Dead and dying matter starves the plant of nutrients, creates a spongy surface and allows disease to develop.

Using the Protea Groomer/Dethatcher throughout the growing season is the most effective means of reducing thatch build-up, and discouraging lateral growth, thus allowing a healthy grass environment.

It shares the same engine, single drive system, chassis, anti-vibration mounts, smooth steel, two-section rear roller, controls and front roller micro adjust handwheel adjustment as the "Greens" models.



A transport cradle is available for convenience and protection from hard surfaces during transportation. The unit comes with a tubular steel front roller as standard, and can be converted to a 6-blade or 9-blade mower if required, or a brushing machine using optional conversion kits.

Groomer blades are hard wearing and can be reversed for extended life. There are 39 blades on the 20 inch model, and 50 blades on the 25 inch model. When replacement blades are finally required, they can be supplied individually or as a complete reel.

The closely spaced 13-tipped spring steel blades rotate at high speed, cutting and discouraging lateral growth, whilst collecting thatch and debris. It can also be used for remedial work to remove dead moss, weeds and surface debris, making it ideal for use on ornamental lawns, and for collecting scarification debris during renovation.

## SPECIFICATIONS

Engine	Subaru Robin model EX17 single cylinder air-cooled 4-stroke OHC petrol engine. Maximum horsepower 5.7 @ 4,000 rpm.
Transmission	
Clutches	Centrifugal clutch to cylinder and plate clutch to landroll drive
Drive System	Enclosed chain drives to reel and rear roller
Rear Roller	Smooth powered two-section rear roller
Grooming	
Grooming Reel	20 inch – 39 spring steel blades, 13 cutting tips with 12mm blade spacing (by order only)
Grooming Reel	25 inch – 50 spring steel blades, 13 cutting tips with 12mm blade spacing
Working width	18 inch (457mm) or 23.5 inch (597mm)
Front Roller	Tubular Steel with precision bearings
Height Adjuster	Front roller micro adjust by single handwheel
Cutting depth	2mm maximum
Dimensions	
Height	1000mm
Length	800mm
Width	670mm and 790mm
Weight	70kg and 76kg (inc. grassbox)



This unit produces results which are nothing short of outstanding and is the ideal partner to any Protea mower, offering an unbeatable combination of performance and quality, and carrying the usual Protea 2 year, 3 years on the Robin Engine, warranty.

# PROTEA POWERED 500SVG MULTI-REEL SCARIFIER

Thatch, if allowed to remain, will develop an impenetrable layer, resulting in spongy and disease-prone turf. The 500SVG was developed to eradicate this thatch which in turn will allow water and nutrient penetration into the soil and the root system.



Powered by a Subaru Robin Overhead Cam 5.7hp engine, driving through twin, deep-grooved V-belts, this tough commercial-grade scarifier, with its interchangeable reels, can perform a variety of tasks to a very high standard.

The Protea 500SVG chassis is a substantially heavy aluminium casting, to which the engines and reels are directly bolted, creating an extremely rigid assembly. It is fitted with low vibration handles, and each of the four wheels, which run in greaseable needle roller bearings, are fitted with adjustable mud scrapers, and have independent height adjusters which can be adjusted in minutes, and provide a positive location with no risk of mis-alignment.

Operation is extremely simple. The twin V-belt transmission is operated by a single lever which locks a jockey pulley to drive the reels. The deadman handle is comfortable, non tiring and unintrusive. The powerful Subaru engine provides plenty of torque for the heaviest workloads, and engine speed can be easily adjusted during operation.

The Protea 500 SVG is the ideal multi-purpose tool for professional groundsmen or greenkeepers at a very attractive price.

## SPECIFICATIONS

Engine	Subaru Robin model EX17 single cylinder air-cooled 4-stroke OHC petrol engine. Maximum horsepower 5.7hp @ 4,000 rpm.
Transmission	
Clutch	Tight/loose V-belts and jockey pulley
Drive System	Twin V-belts
Rear Roller	Smooth and adjustable



**A** Offset Scarifying Reel for use on fine turf to remove thatch  
10 spring steel blades with 2 cutting tips at 50mm spacing



**B** Pin-type Scarifying Reel for aggressive treatment and removal of damaged turf.

5 offset spiral rows with 19 hardened pins per row at row effective spacing of 5mm



**C** Grooming reel designed to remove thatch in the upper layers  
39 spring steel blades with 13 cutting tips at 12mm blade spacing



**D** Verticutting reel- 31 Spring steel straight blades with 2 cutting tips at 12.5mm spacing

Cutting width	457mm
Cutting depth	Up to 38mm (with Verticutting reel)
Height Adjuster	Individual on all four wheels
Dimensions	
Height	920mm, Length 1170mm, Width 770mm, Weight 65kg

# PROTEA BOWLING GREEN MOWER



Protea produce an outstanding Bowling Green Mower in the 760BG. It is renowned through South Africa and Europe as a mower of choice with Bowling Green Clubs for its strength, reliability, features and quality of cut.

The 760BG is superbly balanced, has a 16-blade reversible cutter with a 180 degree spiral design that ensures even throw into the catcher. It is driven by a two-speed gearbox, which enables the operator to change ground speed whilst the cutting cylinder remains constant. When dropping back a gear, 30% more grass is removed without affecting the cutting height, resulting in a faster green.

Power is transmitted from the gearbox to the rear roller and cutting cylinder via heavy-duty machined sprockets and chains. The front roller is constructed from heavy-duty tubular steel, and a scraper bar keeps the roller free from debris.

The four independently driven sections facilitate excellent turning, and the drive pawls, pawl holders and ratchet box are all precision metal castings.

Set against the rear roller, there is an adjustable scraper that will collect all loose cuttings and debris. To cope with windy conditions and to contain cuttings in the catcher, there is a catcher cover grid.

As an optional extra there is a grooming reel that incorporates 62 spring steel cutting blades that are set 10mm apart, and have 13 cutting tips. It can easily be interchanged with the cutting reel.

The latest innovation from Protea is the GB ACE 760. It is designed virtually the same as the 760BG, but with the addition of an Inverter, which provides more even power supply to the electric motor, and protects the motor from power surges or low voltage supply. It has been programmed to trip off if the motor draws too much power.

It is also fitted with a Potentionmeter, which in simple terms works like a dial adjusting the volume on a stereo system. It allows the operator to delicately and easily vary the travelling speed whilst mowing or turning.

Another new feature on the ACE is the self-adjusting teflon-tipped front roller scraper, which floats permanently on top of the roller.

Further, to increase the safety of the ACE, it is fitted with a Bale Bar underneath the handle. If this is let go by the operator during use, the motor will cut out. The handle is also rubberised to isolate the operator from the motor. Now also fitted with a switch at the top of the handlebar to reverse reel direction for easy backlapping.

## SPECIFICATIONS

Motor	240v, 1.5kw, 3-phase. Single phase available.
Transmission	Twin V-belt to countershaft, then by heavy duty drive chains and sprockets
2-Speed	Variable speed through power variation of Potentionmeter
ACE	Centrifugal clutch to cylinder and plate clutch to landroll drive
Clutch	Chain drive
Drive System	Four Section Smooth and adjustable
Rear Roller	16-blade, 152mm diameter, 180 degree spiral
Cutting Reel	Hardened steel, precision ground to 1.3mm at the cutting edge
Bottom Blade	30 inch (510mm)
Cutting width	Heavy-duty Tubular Steel
Front Roller	Dual Micro Adjusters with dual locknuts
Height Adjuster	In high gear at 5.15kmh 200 cuts per metre 2-speed model In low gear at 3.88 kmh 291 cuts per metre ACE model Variable Speed - 200 – 291 cuts per metre
Frequency of cut	
Dimensions	
Height	910mm
Length	1100mm
Width	950mm,
Wheelbase	420mm – middle of roller to roller
Weight	286kg with grassbox

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